ISOLATION AND OPTIMIZATION OF THE ANNEALING TEMPERATURE IN PCR FOR AMPLIFICATION OF CYTOCHROME *b* AND 16S rDNA GENES OF *Hemibagrus nemurus* IN SUNGAI SELANGOR

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ABSTRACT

ISOLATION AND OPTIMIZATION OF THE ANNEALING TEMPERATURE IN PCR FOR AMPLIFICATION OF CYTOCHROME *b* AND 16S rDNA GENES OF *Hemibagrus nemurus* IN SUNGAI SELANGOR

Hemibagrus nemurus also known as Mystus nemurus comes from Bagridae family. This species can be found in wide range of habitats such as rivers and streams, lakes, peat swamps, and marshlands. In this study, the Mystus nemurus was collected in Sungai Selangor. The aims of this study were to amplify the 16s rDNA gene and Cytochrome b species of *Hemibagrus nemurus* in Sungai Selangor and to identify the optimum annealing temperature of PCR for amplification of cytochrome *b* and 16S rDNA in the *Hemibagrus nemurus*. Deoxyribonucleic acid extraction of the fish was done by using conventional method. The products of the Deoxyribonucleic acid extraction then were amplified by using polymerase chain reaction with the specific primer for 16s rDNA and cytochrome *b*. The range of the optimum annealing temperature for this species are 55°C to 58 °C but it shows the better quality product at 56 °C and 58 °C. The product of the Polymerase Chain Reaction was visualized at 500bp which is as the amplicon size referred to the primer characteristics.